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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,704

07/18/2005

Ari Vaisanen

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EXAMINER

MANOHARAN, MUTHUSWAMY GANAPATHY

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,704	<b>Applicant(s)</b> VAISANEN ET AL.	
	<b>Examiner</b> MUTHUSWAMY G. MANOHARAN	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 25-29,31-37,39-45,48,49,56,58,59 and 61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-29,31-37,39-45,48,49,56,58,59 and 61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 25, 28, 31, 32, 36, 39-45, 48-49, 56, 58-59 and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Raith et al. (hereinafter Raith) (US 6259915).**

Regarding **claim 25**, Raith teaches an access node for a wireless communication network comprising:

determining device configured to determine and transmit communication information to a subscriber terminal, said communication information comprising (Col. 8, lines 27-31):

frequency band information indicating a plurality of frequency bands where at least one access node is capable to communicate ("alternatively a single message format could be provided which identifies specific channels and hyperbands", Col. 8, lines 31-33) and

a frequency band coverage indicator related to at least one frequency band of neighboring nodes of the access node in the wireless communication network ("a neighbor list can include information pertaining to servers operating on the Cellular hyperband, as well as servers operating on the PCS hyperband", Col. 5, lines 55-60),

wherein said determining device is further configured to incorporate the communication information in a signaling using a transmission of specific frames to said subscriber terminal (Figures 8a and 8b, "transmitting a signal from base station to the mobile station", Col. 8, lines 1-11, lines 27-34).

Regarding **claim 28**, Raith further teaches an access node, wherein said communication information further comprises a multiple band indicator related to an access node (Col. 5, lines 56-59, Col. 6, lines 1-7).

Regarding **claim 31**, Raith teaches the method according to claim 1, wherein said communication information comprise a frequency channel indicator for indicating the frequency channel used by at least part of the at least one access node at the respective frequency band (Col. 8, lines 27-29; Figures 8a-8b).

Regarding **claim 32**, Raith teaches a subscriber terminal for communicating in a wireless communication network, comprising:

a receiving portion configured to receive communication information transmitted from at least one access node, said communication information comprising (Col. 8, lines 27-31):

frequency band information indicating a plurality of frequency bands where the at least one access node is capable to communicate ("alternatively a single message format could be provided which identifies specific channels and hyperbands", Col. 8, lines 31-33), and

a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the transmitting access node in the wireless

communication network("a neighbor list can include information pertaining to servers operating on the Cellular hyperband, as well as servers operating on the PCS hyperband", Col. 5, lines 55-60),

wherein said communication information is received being transmitted from said at least one access node by signaling by transmission of specific frames;

a processor configured to process the received transmitted communication information and the frequency band coverage indicator so as to determine based on the communication information a communication connection capability of at least part of the at least one access node on the basis of the frequency band information ("MAHO", Col. 8, lines 12-26); and

a decision portion configured to decide on a communication connection changeover of the subscriber terminal by using a processing result (Col. 7, lines 58-67).

**Claims 36 and 39** are rejected for the same reason as set forth in claims 28 and 31 respectively.

Regarding **claim 40**, Raith teaches the subscriber terminal according to claim 32, further comprising:

a detecting device configured to detect a signal strength indicator on a predetermined frequency band, wherein said processor is further configured to compare the detected signal strength indicator with a predefined threshold value, the result of the comparison indicating an estimation of the connection capability of an access node on another frequency band, and said decision device are configured to use the result of said comparison (Col. 6, lines 54-63).

Regarding **claim 41**, Raith teaches the subscriber terminal wherein the decision portion is further configured to change the communication connection from the present frequency band to another frequency band which is common to the subscriber terminal and the access node associated with the subscriber terminal (col. 7, lines 44-47).

Regarding **claim 42**, Raith teaches a subscriber terminal wherein the decision portion is further configured to decide to change the communication connection from a current access node (item 30 in Figure 1) to a specific frequency band of a neighboring access node which is common to the subscriber terminal and the neighboring access node to be associated with the subscriber terminal (Col. 7, lines 41-67; Col. 8, lines 1-11).

Regarding **claim 43**, Raith further teaches the subscriber terminal wherein the processor is further configured to process communication information transmitted from two or more access nodes in the wireless communication network are processed in said processing step (Col. 8, lines 26-35).

**Claims 44 and 45** are rejected for the same reason as set forth in claims 25 and 32 respectively.

**Claims 48 and 49** are rejected for the same reason as set forth in claim 32.

Regarding **claim 56**, Raith teaches the access node wherein the signaling comprises a transmission of one or more specific frames (Figures 8a and 8b, "transmitting a signal from base station to the mobile station", Col. 8, lines 1-11, lines 27-34).

Regarding **claim 58**, Raith teaches the access node wherein the multiband indicator indicates at least one frequency band (Col. 5, lines 47-67).

**Claims 59 and 61** are rejected for the same reason as set forth in claim 56 and 58 respectively.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 26, 27 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith et al. (hereinafter Raith) (US 6259915) in view of Moreton et al. (hereinafter Moreton) (US 2004/0013128).**

Regarding **claim 26**, Raith teaches all the particulars of the claim except wherein said wireless communication network is a WLAN, based on an IEEE 802.11 standard. However, Moreton teaches in an analogous art the access node, wherein said wireless communication network is a WLAN, based on an IEEE 802.11 standard (Abstract). Therefore, it would be obvious to one of ordinary skill in the art at the time invention to have the access node wherein said wireless communication network is a WLAN, based on an IEEE 802.11 standard in order to provide greater connectivity to variety of wired and wireless networks and hence greater flexibility.

Regarding **claim 27**, Moreton further teaches the access node, wherein said at least one frequency band comprises a frequency band of 2.4 GHz and one or more frequency bands between 5 and 6 GHz (Paragraph [0010]).

**Claims 33 and 34** are rejected for the same reason as set forth in claims 26-27 respectively.

Regarding **claim 35**, Raith teaches all the particulars of the claim except the said receiving device is further configured to extract the communication information from a beacon packet broadcasted from the access node. However, Moreton teaches in an analogous art a receiving device is further configured to extract the communication information from a beacon packet broadcasted from the access node (Paragraph [0089], lines 1-2). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the said receiving device is further configured to extract the communication information from a beacon packet broadcasted from the access node in order access the network using passive scanning.

**Claims 29 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith et al. (hereinafter Raith) (US 6259915) in view of AP (applicant admitted prior art) (US 2006/0073827).**

Regarding **claim 29**, Raith teaches all the particulars of the claim except the access node, wherein said communication information further comprises a traffic load indicator related to the at least one frequency band of an access node. However, AP teaches in an analogous art the access node, wherein said communication information



further comprises a traffic load indicator related to the at least one frequency band of an access node (Paragraph [0010]). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the access node, wherein said communication information further comprises a traffic load indicator related to the at least one frequency band of an access node in order to perform changeover.

**Claim 37** is rejected for the same reason as set forth in claim 29.

### ***Response to Arguments***

Applicant's arguments with respect to claims 25-29, 31-37, 39-45, 48-49, 56, 58-59, and 61 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUTHUSWAMY G. MANOHARAN whose telephone number is (571)272-5515. The examiner can normally be reached on 7:00AM-2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eng George can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/  
Supervisory Patent Examiner, Art  
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